

### REMARKS

This Amendment responds to the Office Action dated February 4, 2005 in which the Examiner rejected claims 1-3, 5-8 and 10 under 35 U.S.C. §102(b) and rejected claims 4 and 9 under 35 U.S.C. §103.

As indicated above, minor informalities in the specification have been corrected. Applicant respectfully requests the Examiner approve the corrections.

As indicated above, claims 1 and 6 have been amended in order to make explicit what is implicit in the claim. The amendment is unrelated to a statutory requirement for patentability and does not narrow the literal scope of the claims.

Claim 1 claims a head arm assembly and claim 6 claims a disk drive apparatus including at least one information disk and at least one head arm assembly. The head arm assembly comprises a head slider, a high-stiffness arm member, an actuator and a resilient spring plate. The head slider has at least one head element. The high-stiffness arm member is for supporting the head slider at one end section. The arm member generates no load. The actuator is mounted to the other end section of the arm member, and rotationally moves the arm member in a direction substantially parallel with a recording medium surface around a horizontal rotation axis of the arm member. The resilient plate spring is for generating a load. The plate spring has one end section fixed to the arm member and the other end section for energizing the head slider in a direction to the recording medium surface.

Through the structure of the claimed invention having a) an arm member which generates no load and b) a resilient spring plate generating a load, having one end section fixed to the arm member and the other end section energizing the head slider in a direction to the recording medium surface, as claimed in claims 1 and 6,

the claimed invention provides a head arm assembly and disk drive apparatus therewith with improved wind resistance, impact resistant in a Z-direction and simplified manufacturing processes. The prior art does not show, teach or suggest the invention as claimed in claims 1 and 6.

Claims 1-3, 5-8 and 10 were rejected under 35 U.S.C. §102(b) as being anticipated by Goss (U.S. Patent No. 5,786,961).

Goss appears to disclose in FIG. 1 a disk-facing side of an assembled head suspension assembly (HSA) 10. FIG. 3 shows the other side of the same HSA 10. The HSA 10 comprises a suspension assembly 20 and a head assembly 30. The length of the HSA 10 defines a longitudinal axis that bisects the HSA 10 down the middle. The suspension assembly 20 usually includes a load beam 40 and a gimbal assembly 50. The proximal end of the suspension assembly 20 is reinforced by a base plate 22 that may be configured for mounting to an actuator arm (not shown) used in some disk drives. The head assembly 30 includes a transducer mounted to an air-bearing slider 32, shown in FIGS. 2, 4, 5, and 7. The flexure pad 60 is shaped and arranged to support the head assembly 30. Among the many possible gimbal designs, the flexure pad 60 may be shaped as a flat rectangular flexure tongue, as in the embodiment of FIGS. 1-3 or in the embodiment shown in FIGS. 8 and 9. In the illustrated embodiments, the flexure pad 60 is centrally located along the longitudinal axis, at the center of the central aperture. The flexure pad 60 includes a circular hole 62, seen in the exploded views of FIGS. 8 and 10, located also on the longitudinal axis. The hole 62 is centrally placed with respect to the width of the gimbal assembly 50. The flexure pad 60 also includes a first surface 64, seen in FIGS. 8 and 9, and a second surface 66, seen in FIGS. 1 and 2. As shown in FIGS. 4 and 5,

a spherical ball 70 fits into the circular hole 62. The lower pivot portion 72 of the ball which protrudes .apprx.38 um from the second surface 66 provides a spherical pivot interface to the top of the slider 32 for eliminating adverse pitch and roll torques which normally result from pitch and roll static attitude errors, as shown in FIG. 7.

The upper gimballing portion 74 of the ball, shown in FIG. 4, protrudes from the first surface 64 and provides a dimple load beam interface for gimballing and to act as a load point. (col. 4, lines 4-55) The gimbal assembly 50 also includes a bearing cover 80, illustrated in FIGS. 3, 8-11, joined to the load beam 40. The cover 80 can be an integral projection of the load beam 40, such as the rectangular "T" projection of FIG. 3, or it can be a separate element, as in FIGS. 8-11, attached (by adhesive, welds, or other methods known in the art) to the load beam 40. The cover 80 extends over a portion of the flexure pad 60 and over the spherical ball 70. The cover 80 contacts the ball 70 and presses against it, thus defining the intersection of the gimbal pitch and roll axes. In this way the spherical ball 70 also acts as a load beam interface. (col. 5, lines 27-39)

Thus, Goss merely discloses a load beam 40 which generates a load to slider 30. Applicants respectfully point out that the term "load beam" in this technical field means a beam which generates a load. Applicants respectfully submit that the load beam 40 shown in Figures 1, 3, 10 and 11 of Goss have a well known structure which generates a load at its rear end flexible section near the base section 22 (which is generally called a bending section). However, as claimed in claims 1 and 6, the arm member generates no load. Goss teaches away from the claimed invention since the load beam 40 generates a load.

Additionally, Goss merely discloses a bearing cover 80 which contacts ball 70 and defines an intersection of a gimbal pitch and roll axis. Nothing in Goss shows, teaches or suggests a resilient spring plate for generating a load having one end fixed to an arm member which generates no load and the other end section for energizing the head slider in a direction to the recording medium surface as claimed in claims 1 and 6. Rather, Goss merely discloses a bearing cover 80 which contacts ball 70 which acts as a load beam interface (i.e., the bearing cover 80 of Goss transfers the load generated by the load beam 40 to the spherical ball 70 and thus does not a) generate a load and b) have one end section fixed to an arm member which generates no load).

Since nothing in Goss shows, teaches or suggests a) an arm member generating no load and b) a resilient plate spring generating a load and having one end section fixed to an arm member which generates no load as claimed in claims 1 and 6, Applicants respectfully request the Examiner withdraws the rejection to claims 1 and 6 under 35 U.S.C. §102(b).

Claims 2-3, 5, 7-8 and 10 depend from claims 1 and 6 and recite additional features. Applicants respectfully submit that claims 2-3, 5, 7-8 and 10 would not have been anticipated by Goss within the meaning of 35 U.S.C. §102(b) at least for the reasons as set forth above. Therefore, Applicants respectfully request the Examiner withdraws the rejection to claims 2-3, 5, 7-8 and 10 under 35 U.S.C. §102(b).

Claims 4 and 9 were rejected under 35 U.S.C. §103 as being unpatentable over Goss in view of *Hudson et al.* (U.S. Patent No. 6,229,667).

Applicants respectfully traverse the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, Applicants respectfully request the Examiner withdraws the rejection to the claims and allows the claims to issue.

As discussed above, since nothing in *Goss* shows, teaches or suggests the primary features as claimed in claims 1 and 6, Applicants respectfully submit that the combination of the primary reference with the second reference to *Hudson et al.* will not overcome the deficiencies of the primary reference. Therefore, Applicants respectfully request the Examiner withdraws the rejection to claims 4 and 9 under 35 U.S.C. §103.

New claims 11-16 have been added and recite additional features. Applicants respectfully submit that these claims are also in condition for allowance.

The prior art of record, which is not relied upon, is acknowledged. The references taken singularly or in combination do not anticipate or make obvious the claimed invention.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicants respectfully petition for an appropriate extension of time.

The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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